

AMENDMENT UNDER 37 C.F.R. § 1.114(c)
U.S. Application No. 10/501,566 (Q101072)

REMARKS

Claims 20 and 116-118 are in the application. Solely to compact prosecution and without prejudice or disclaimer claim 20 is amended. Support for the amendment is found, *inter alia*, at page 85, ll. 13-16 of the specification and at paragraphs 247, 322 and 543 of the specification. No new matter is added. Entry of the Amendment is respectfully requested.

I. Claims 20 and 116-118 Are Proper Under 35 U.S.C. § 112, First Paragraph

At paragraph 11, on page 4 of the Office Action, the Office rejects claims 20 and 116-118 under 35 U.S.C. § 112, first paragraph, as allegedly failing to comply with the written description requirement (i.e., introducing “new matter”). At page 4 of the Office Action, the Office admits, “The discussion at page 84, lines 13-16, of Specification (filed July 15, 2004) as asserted by Applicants at page 6 of the Response (filed July 28, 2008) is noted; however the disclosure is limited to a substrate of the protein in the context of a cell that expresses the protein.” [Emphasis Added].

Applicants respectfully disagree that new matter was introduced. Initially, the Office is reminded that to meet the goal of reaching a clearly defined issue for an early termination of proceedings, i.e., issuance of an Office Action or Allowance of claims, the Office is charged with conducting a careful and thorough search and fully applying the references in preparing the first Office Action on the merits in order for a speedy and just determination of the issues involved in the examination of the application. *See* MPEP §§ 706.07 and 904.03. The specification and claims were not duly considered prior to issuance of the outstanding Office Action.

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Literal support for the protein substrate is present in the specification, *inter alia*, at ¶¶ 199-203, 230-239, 247, 322, 543 and page 85, ll. 13-16.

Withdrawal of the “new matter” rejection is therefore kindly requested.

II. Claims 20 and 116-118 Are Enabled Under 35 USC § 112, First Paragraph

At paragraph 13, on page 5 of the Office Action, the Office rejects claims 20 and 116-118 under 35 U.S.C. § 112, first paragraph, as allegedly lacking enablement. To attempt to support the rejection, the Office alleges that undue experimentation would be required to make and use Applicants’ claimed invention and that there is no disclosure of any specific starting materials or examples of Applicants’ kit.

Applicants respectfully disagree. The Office is reminded that in order to sustain an enablement rejection, the Office has the initial burden to establish a *reasonable* basis to question the enablement provided for the claimed invention. *In re Wright*, 999 F.2d 1557, 1562, 27 USPQ2d 1510, 1513 (Fed. Cir. 1993). The law is clear,

"It is incumbent upon the Patent Office, whenever a rejection on this basis is made, to explain why it doubts the truth or accuracy of any statement in a supporting disclosure and to back up assertions of its own with acceptable evidence or reasoning which is inconsistent with the contested statement. Otherwise, there would be no need for the applicant to go to the trouble and expense of supporting his presumptively accurate disclosure." *In re Marzocchi*, 439 F.2d at 224, 169 USPQ at 370 (1971).

The Office is respectfully reminded that a “lack of working examples or lack of evidence that the claimed invention works as described should never be the sole reason for rejecting the claimed invention on the grounds of lack of enablement.” [Emphasis added] MPEP § 2164.02.

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The legal standard for determining enablement is not whether one of skill in the art would be able to predict in advance every claimed embodiment but rather, whether undue or unreasonable experimentation would be required in order to practice the invention as claimed. *In re Wands*, 858 F.2d 731, 737 (Fed. Cir. 1988). The test of enablement is not whether any experimentation is necessary, but whether, if experimentation is necessary, it is undue. *In re Angstadt*, 537 F.2d 498, 504, 190 USPQ 214, 219 (CCPA 1976). M.P.E.P. § 2164.01. Extensive screening to isolate a claimed cell was not undue when the required methods are routine in biotechnology. *In re Wands*, 858 F.2d 731, 737 (Fed. Cir. 1988). A patent disclosure need not enable information within the knowledge of an ordinarily skilled artisan. *Chiron Corp. v. Genentech, Inc.*, 363 F.3d 1247, (Fed. Cir. 2004), petition for cert. filed Oct. 4, 2004.

The specification and state of the art as of the filing date of the present application was not properly considered in making the lack of enablement rejection. Applicants' state of the art references (i.e., Tollefson et al., Graves et al. and Rothman et al., attached hereto) illustrate that as of Applicants' filing date methods of assaying polypeptides using substrates were well known to one having ordinary skill in the art (i.e., using baby hamster kidney cells, squamous lung cell carcinoma cells and rat caudate homogenates, respectively). Accordingly, the Office failed to conduct a careful and thorough search and fully apply the references in preparing the first Office Action on the merits. *See* MPEP §§ 706.07 and 904.03.

Regarding the Examiner's assertion, at page 6 of the Office Action, that the art fails to disclose how to use a polypeptide (i.e., a transporter) and substrate "outside of the context of a transporter protein comprised in a cell" the Office is incorrect. One of ordinary skill knows how

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to use a polypeptide and substrate “outside of the context of a transporter protein comprised in a cell.” The literature is replete with examples of cell-free liposomes useful for polypeptide/substrate assaying, including:

Bangham et al., J. Mol Biol., 13,238-252 (1965);
Papahadjopoulos et al., Biochim. Biophys. Acta., 13,624-638(1968);
Cullis et al., PCT Application No. WO 86/00238, published Jan. 16, 1986;
Lenk et al., U.S. Pat. No. 4,522,803;
Fountain, et al., U.S. Pat. No. 4,588,578;
Bally et al., PCT Publication No. 87/00043 (published Jan. 15, 1987);
Janoff et al., U.S. Pat. Nos. 5,041,287, 5,231,112 and 5,330,689;
Tomioka et al., J. of Immunological Methods, Vol. 176 (1994);
Cole, U.S. Pat. No. 4,483,921;
Wagner et al., U.S. Pat. No. 4,978,625;
Gibbons et al., U.S. Pat. No. 5,068,198;
Hosoda et al., U.S. Pat. No. 5,173,406;
Kida et al., U.S. Pat. No. 5,221,613; and
Malick et al., U.S. Pat. No. 5,620,903.¹

Thus, the state of the art reflects an appreciation by one having ordinary skill in the art of kits for methods to assay polypeptides and substrates thereof wherein the polypeptides need not but may be included within a cellular membrane. The Office’s technical observation, in paragraph 16, on page 6 of the Office Action, wherein the Office concludes that a skilled artisan “certainly can not use the transporter polypeptide of SEQ ID NO:1 and a substrate of this protein in this capacity without first inventing a process of inserting the protein into a cell or membrane in its proper orientation” is incorrect and made without any form of independent scientific support.

¹ Due to the large number of references cited Applicants have not provided all of the references to the Office. At the request of the Office Applicants will kindly provide any non-patent literature cited herein.

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At page 5 of the Office Action, the Office cites to *In re Wands*, 858 F.2d 731, (Fed. Cir. 1988) to allegedly support its rejection. However, the present facts resemble those under review in *In re Wands*, wherein the Court reversed the Examiner's rejection for lack of enablement holding that undue experimentation would not be required to practice the invention because it was known that a necessary step was routine (i.e., it was known and routine to first make monoclonal hybridomas to determine which hybridomas secrete antibodies with the desired characteristics). The Court found that the specification and state of the art provided the information needed to practice the invention. *Id.* As in the present case, inventor Wands taught components which fell within the scope of the claims. The Court agreed and found the non-enablement rejection improper.

In paragraph 17, on page 6 of the Office Action, the Office cites *Genentech, Inc. v. Novo Nordisk*, 42 USPQ 2d 100, (CAFC 1997) however the facts and the holding in *Genentech* are not analogous nor applicable, respectively. In *Genentech*, the court indicated, "there is no dispute that the portion of the specification chiefly relied upon by Genentech and by the district court...does not describe in any detail whatsoever how to make hGH using cleavable fusion expression." [Emphasis added] *Id.* This is unlike the present situation wherein Applicants teach a specific polypeptide and that the peptide interacts with substrate. In addition, in *Genentech*, the court considerably weighed Genentech's admission that "trypsin would not be useful for the cleavable fusion expression of arginine-containing proteins such as hGH" but then Genentech later asserted the opposite, arguing that cleavable fusion expression (i.e., by trypsin) is generally well-suited. *Id.* This is not consistent with the present facts because Applicants' arguments are

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consistent with the teachings in the specification. The *Genentech* court found that “neither the specification nor the references cited by Genentech suggest a single amino acid sequence, out of the virtually infinite range of possibilities...”. *Id.* Applicants’ claims recite (and the specification teaches) SEQ ID NO:1. Thus, the Office’s application of *Genentech* to the present facts is improper and fails to support a lack of enablement rejection.

The Office failed to appreciate the nature of the invention, the level of skill of the ordinarily skilled artisan, the level of predictability in the relevant art, the breadth of the claims and the routine quantity of experimentation needed to practice the invention. The evidence provided by Applicants (including numerous state of the art references) need not be conclusive but merely convincing to one skilled in the art - Applicants’ burden is met. M.P.E.P. §2164.05.

Withdrawal of the lack of enablement rejection is kindly requested.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

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The U.S. Patent and Trademark Office is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



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